AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A detector of an absolute rotation angle and torque, the detector comprising:

a torsion-bar unit including an input shaft, an output shaft and a torsion bar;

a first gear coupled to the input shaft;

a gear A engaging with the first gear;

a first detecting section ~~section, placed at a center of gear A, for~~ for detecting an absolute rotation angle of the gear A;

a second gear coupled to the output shaft;

a gear B engaging with the second gear; and

a second detecting section ~~section, placed at a center of gear B, for~~ for detecting an absolute rotation angle of the gear B,

wherein the first detecting section includes a first magnet and a first detecting element of magnetism confronting the first magnet,

wherein the second detecting section includes a second magnet and a second detecting element of magnetism confronting the second magnet,

wherein the first magnet is disposed at a center of the gear A, and

wherein the second magnet is disposed at a center of the gear B.

2-3. (Canceled)

4. (Currently Amended) The detector of an absolute rotation angle and torque of claim 1,

wherein the first and the second gears have an identical number of teeth, and the gear A has a different number of teeth from that of the gear B,

wherein an absolute rotation angle is calculated from a difference between the respective absolute rotation angles of the gear A and the gear B, and

wherein torque is calculated from a difference between ~~an~~ the absolute rotation angle of the gear A and that of the gear B multiplied by the teeth ratio of the gear A vs. the gear B.

5. (Currently Amended) The detector of an absolute rotation angle and torque of claim 1,

wherein the first gear has a different number of teeth from that of the second gear, and the gear A and the gear B have an identical number of teeth,

wherein an absolute rotation angle is calculated from a difference between respective absolute rotation angles of the gear A and the gear B, and

wherein torque is calculated from a difference between ~~an~~ the absolute rotation angle of the gear A and that of the gear B multiplied by the teeth ratio of the first gear vs. the second gear.

6. (Currently Amended) The detector of an absolute rotation angle and torque of claim 4,

wherein respective initial absolute rotation angles of the gear A and the gear B are stored in advance in a nonvolatile memory, and

wherein rotation angles starting from ~~those~~ the initial absolute rotation angles stored in the nonvolatile memory are regarded as respective absolute rotation angles of the gear A and the gear B and are used for calculating an absolute rotation angle and torque.

7. (Currently Amended) The detector of an absolute rotation angle and torque of claim 4,

wherein a correction angle is stored in a nonvolatile memory in advance, ~~which~~ the correction angle ~~is~~ being a respective difference between correct absolute rotation angles of the gears A, B and the absolute rotation angles calculated by the first and the second detecting elements of magnetism, and

wherein each ~~one~~ of the correction angles stored in the nonvolatile memory are added to the respective absolute rotation angles calculated by the first and the second detecting elements of magnetism, and the angles added are regarded as respective absolute rotation angles of the gear A and the gear B and are used for calculating an absolute rotation angle and torque.

8. (Currently Amended) The detector of an absolute rotation angle and torque of claim 4,

wherein the detector ~~gives~~ provides a warning of an abnormality when a difference between ~~an~~ the absolute rotation angle of the gear A and ~~that~~ the absolute rotation angle of the gear B multiplied by teeth ratio of the gear A vs. the gear B exceeds a predetermined allowance.

9. (Currently Amended) The detector of an absolute rotation angle and torque of claim 5,

wherein the detector ~~gives~~ provides a warning of an abnormality when a difference between ~~an~~ the absolute rotation angle of the gear A and ~~that~~ the absolute rotation angle of the gear B multiplied by a teeth ratio of the first gear vs. the second gear exceeds a predetermined allowance.